Smart Procurement

Presented to:
2012 Smart Procurement Conference

Presented by:
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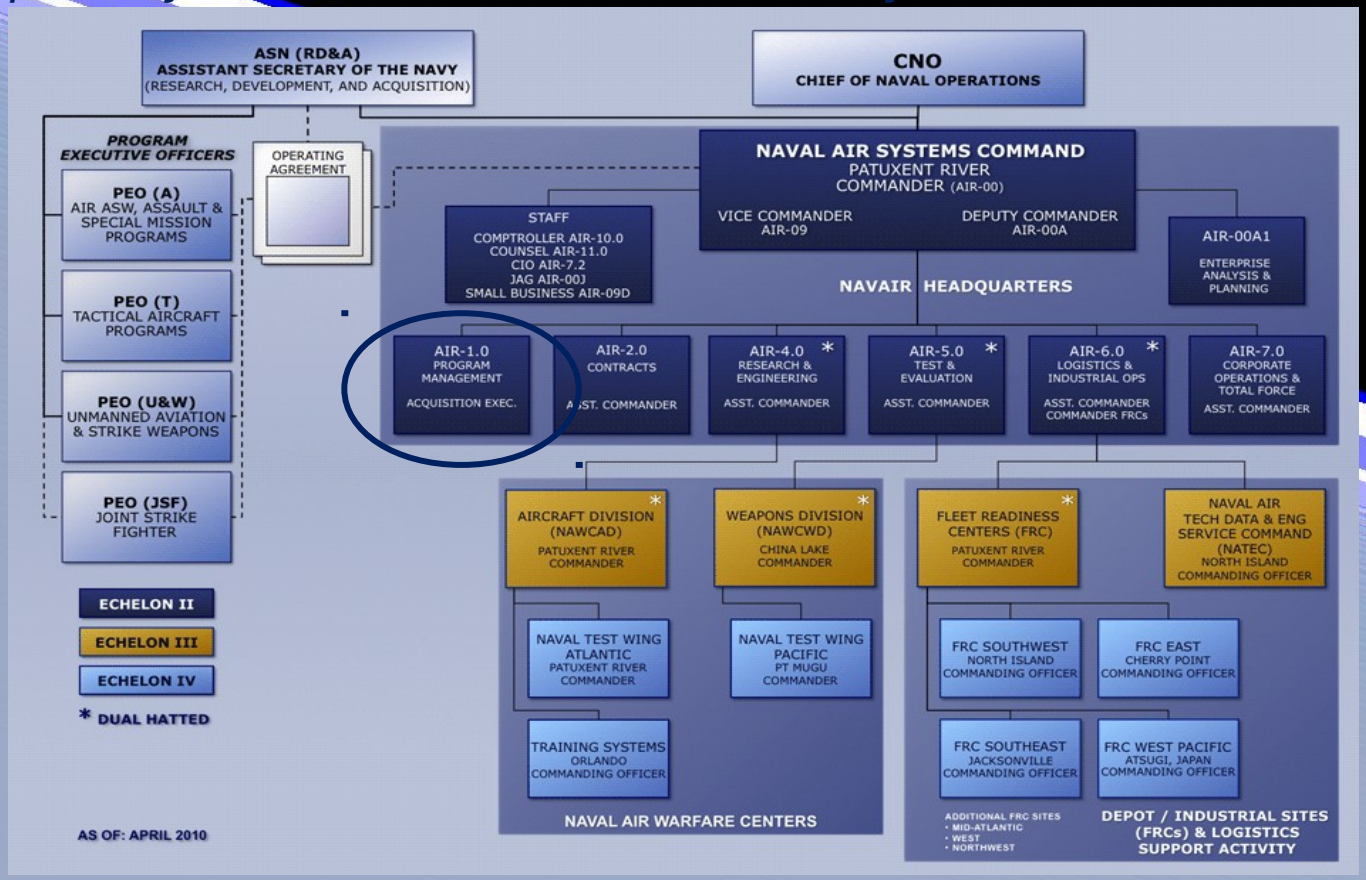
AIR-1.0 Mission Statement

"Provide effective acquisition management across NAVAIR and Naval Aviation PEO's by developing and providing a competent professional workforce, applying smartly designed policies, processes, toolsets and best practices to enable delivery of effective and suitable weapons systems to our customers today and into the future"



AIR-1.0 Overview

ORGANIZATION

Asst. Cmdr.

Deputy Asst. Cmdr.

STAFF

CHIEF OF STAFF
DEPLOYMENT CHAMPION
DEPUTY FOR OPERATIONS
HQ RESOURCES
PROGRAM SUCCESS ORIENTATION TEAM LEAD

APEO's

AIR-1.0	DEP. for ACQUISITION
AIR-2.0	CONTRACTS
AIR-4.0	RESEARCH & ENGINEERING
AIR-5.0	TEST & EVALUATION
AIR-6.0	LOGISTICS & INDUSTRIAL OPS
AIR-7.8	BUSINESS / FINANCIAL MANAGEMENT
AIR-10.0	COMPTROLLER
AIR-11.0	LEGAL

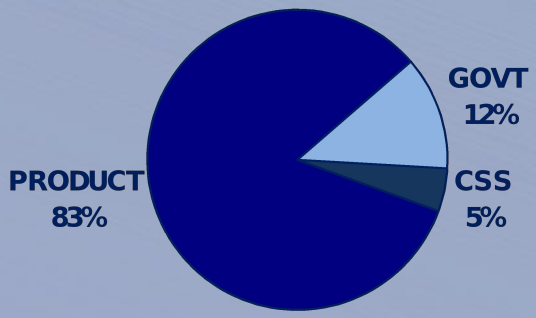
- ACQ POLICY & PROCESS DEPT AIR-1.1
- INTL PROGRAMS DEPT AIR-1.4
- AIRCREW SYSTEMS PMA202
- H-46 AIRCRAFT PMA226
- AV / SHIP INTN DEPT AIR-1.2
- ACQ FORCE MGMT AIR-1.5
- TRAINING SYSTEMS PMA205
- AVIATION SUPPORT EQUIPMENT PMA260
- PM & PERSONNEL SUPPORT AIR-1.3
- ENVIRO PROGRAMS DEPT AIR-1.6
- AIR COMBAT ELEC (ACE) PMA209
- NAVIGATION SYSTEMS PMW/A170

Warfare Centers / FRCs

- AIR-1.0 FRC CP & JAX
- AIR-1.0 NAWC AD PAX & LKE
- AIR-1.0 NAWC AD Orlando

FUNDING DISTRIBUTION

PRODUCT VS. SUPPORT

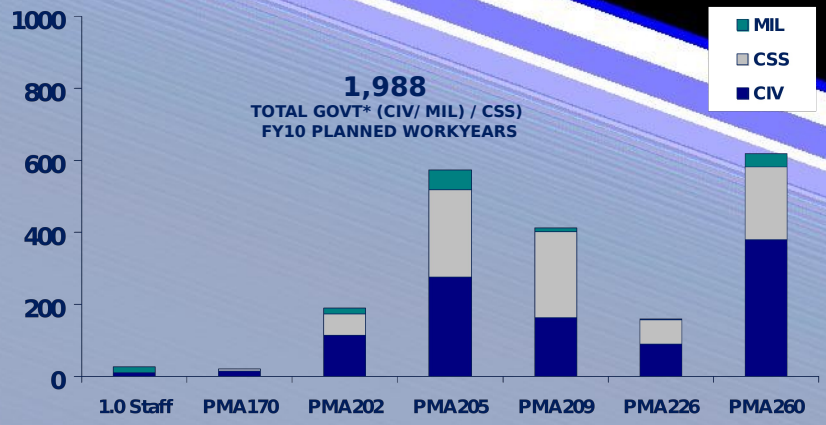


FY10 PLAN

- TOTAL $ MANAGED: $1.26B
- PROGRAMS ASSIGNED
  - ACAT II (OR EQUIVALENT): 2
  - ACAT III: 4
  - ACAT IV: 9
  - ABBREVIATED ACQUISITION PROGRAMS: 73
- PLANNED MAJOR EVENTS
  - ELECTRONIC CONSOLIDATED AUTOMATED SUPPORT SYSTEM IBR
  - FLIGHT DECK CRANIAL MS C
  - CH-46 LAIRCM DEPLOYMENT
- CURRENT INITIATIVES
  - AVIATION/ SHIP INTEGRATION

WORKFORCE

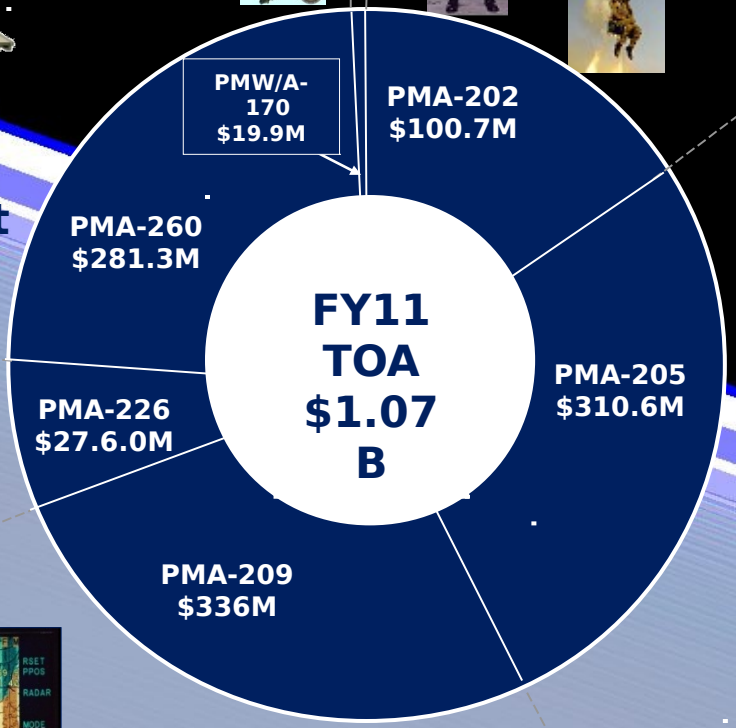
ASST. CMDR. PROGRAM OFFICE WORKFORCE:



*DOES NOT INCLUDE STAFFING FOR 1.0 COMPETENCY FUNCTIONS

UPDATED: 3 June 2010

AIR1.0 Programs



NAVWAR

Mr. Vince Squillieri

Aircrew Systems

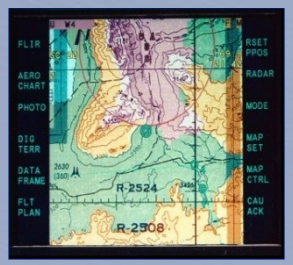
CAPT Roger Ligon

Support Equipment

CAPT Fred Hepler

H-46E/T58

LtCol David Walsh



Air Combat Electronics

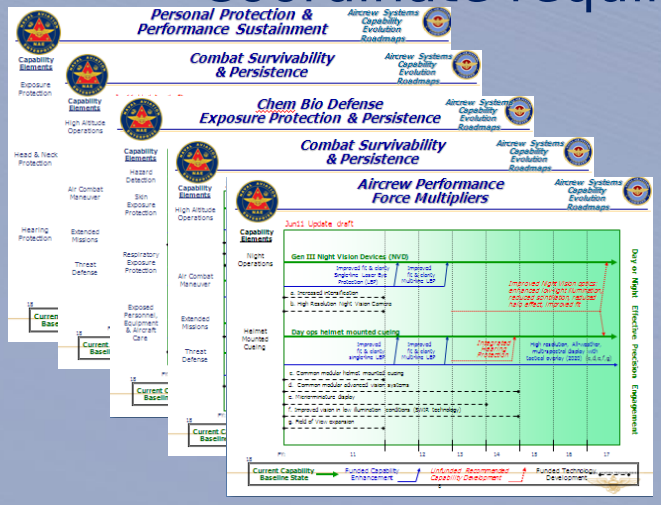
CAPT Tracy Barkhimer

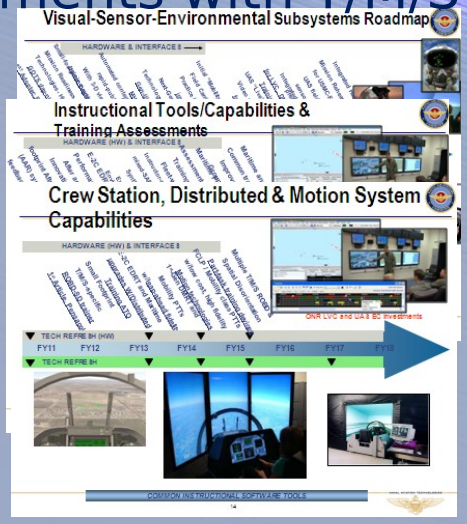
Training Systems

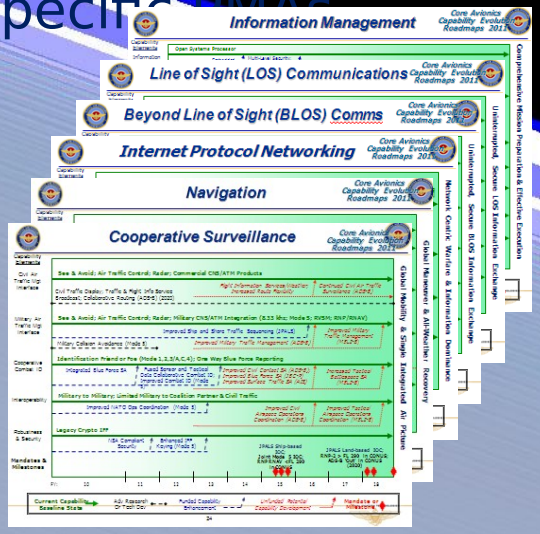
CAPT John Feeney

Capability Roadmaps

- AIR1.0 PMAs use agile, Fleet prioritized, capability roadmap development processes to:
  - Identify potential technology maturation needs by capability element and product area.
  - Enable successful program investment decisions by DON.
  - Feed multi-service Common Capability Roadmaps through the Aviation Common Systems Board.
  - Coordinate requirements with T/M/S specific PMAs


Personal Protection & Performance Sustainment
Combat Survivability & Persistence
Chem Bio Defense Exposure Protection & Persistence
Combat Survivability & Persistence
Aircrew Performance Force Multipliers
Jun11 Update draft
Gen III Night Vision Devices (NVD)
Day ops helmet mounted cueing
Day or Night Effective Precision Engagement


Visual-Sensor-Environmental Subsystems Roadmap
Instructional Tools/Capabilities & Training Assessments
Crew Station, Distributed & Motion System Capabilities
FY11 FY12 FY13 FY14 FY15 FY16 FY17 FY18



AIR1.0 Technology GAPS

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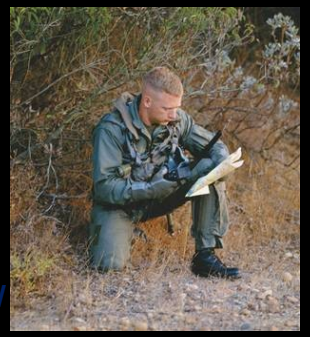
Aircrew Systems Technology Gaps

- Enhanced Visual Acuity Sensor Technology
  - Aircrew mounted multi-wavelength digital sensors (e.g. NIR, SWIR, …)
  - Applications to enhance pilot acuity in degraded visual conditions.
- Advanced Battery Technology
  - Smaller form-factor and longer life.
  - Aircrew survival radio bulk reduction.
  - Increasing use of aircrew mounted battery operated equipment.
- Advanced Aircrew-Mounted Display Technology
  - Miniature, high resolution digital displays (>2k x 2kpixel) for aircrew mounted applications. (e.g. digital goggles or HMDs).
  - Affordable HMD applications across all T/M/S for increased SA of flight parameters and cuing.
- Hearing Conservation Technology
  - Reduced-bulk technologies capable of exceeding 40 db noise attenuation with talk-through capability for aircrew and maintainer applications.
- Fire Retardant Textile Design
  - Affordable replacement for legacy Aramid fibers used in DoD flight clothing applications.



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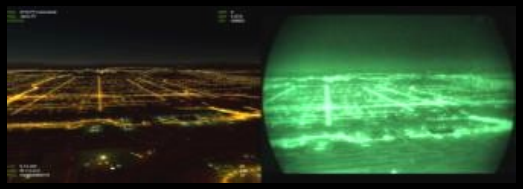
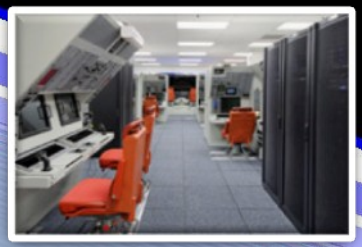
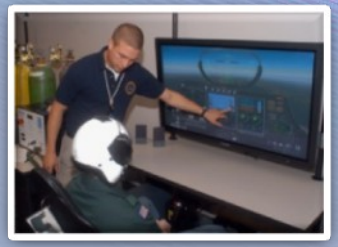
Trainer Technology Gaps

- Visual Systems
  - Fidelity and resolution
  - FOV/Masking techniques
  - Correlated database enhancements
- Modeling
  - Behaviors (intelligent entities - smart threats and teammates)
  - Environmental (improve fidelity, atmospheric, weather, and acoustics)
  - Threat systems and weapon models
  - Degradation models (comms and link)
  - Natural language processing and speech generation
- Instructor Operator Stations and Debrief Systems
  - Display and control design
  - Automated performance measurement, diagnosis, trend analysis, and readiness tracking
- Motion
  - Physiological and tactical performance research
  - Motion cueing – guidelines for implementing technologies (low cost alternatives)
- Live, Virtual, and Constructive Interaction
  - Fusion of real-time stimulation across platforms, fidelity, SAFs, and environments



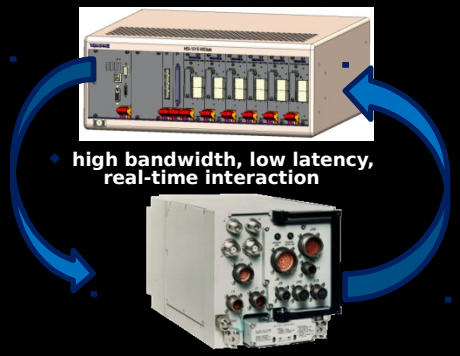


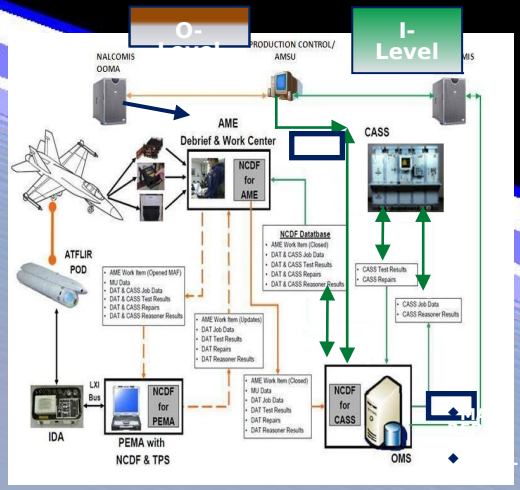


Support Equipment Technology Gaps

- Ground Support Systems
  - Commercially available On-Board Diagnostic Equipment
  - Condition Based Maintenance and Workload Mgmt.
  - Wireless/Download real time status
  - Self-Aligning/Internal Calibration equipment (NCR)

- Automated Test Systems (ATS)
  - DoD Open Systems Framework
    - Joint service support, Fleet efficiencies (SmartTPS, Directed Test), Fleet Engineering Investigation (EI) support, data collection and analysis, classified processing
  - Net centric data environment for Fleet and Engineering
  - Early Identification and mapping of emerging weapon systems technology to test requirements
    - Comm. Bus architecture for ATE





Avionics Technology Gaps

Flight S[illegible]		
Information Management	Inf[illegible]	
Flight Safety	Terrain & Obs[illegible]	
Information Management	Information Distribution	A[illegible]
		Fiber Optic [illegible] Avionics Ruggedi[illegible]
		Fiber Optic Networking
Navigation	Enroute & Terminal Area Maneuver	More Resilient Navigation in GPS Challenged Environments
	Robustness & Security	
Beyond Line Of Sight (BLOS) Communications	Wideband SATCOM	Small (wrt frequency band) wideband SATCOM Antennas

GPS and NAVWAR Technology Gaps

- Air Force leads GPS and NAVWAR technology development efforts for DoD
- Technology Gaps
  - Technologies that support maintaining good Positioning, Navigation, and Timing (PNT) during long periods of GPS denial
  - Vision Aiding/Terrain Aiding position technologies
  - An aircraft network timing unit with an atomic clock
  - Signals of opportunity navigation technologies development

Technology Insertion Mechanisms

- Technology push
  - New technology becomes available to improve performance or reduce size, weight, power consumption or cost
- Technology pull/new requirement
  - New or improved requirements that demand increased performance (new or existing systems)
- Planned or unplanned obsolescence
  - Existing system is no longer maintainable or economically feasible

AIR-1.0 Key Takeaways

- A Milestone Decision Authority (MDA) for multiple NAVAIR programs which provide excellent Small Business opportunities
- Has had a history of great successes while incorporating Small Businesses into program acquisition strategies
- Receptive to incorporating and championing SBIR technologies that can mitigate AIR-1.0 current and future programmatic challenges